Defining Postsecondary Expectations for Reading and Writing in Kentucky

As recommended in the American Diploma Project (ADP) legal research report, the ADP asked members of the postsecondary community in Kentucky to define their expectations of high school graduates (related to admissions and placement decisions), to comment on what is now expected of high school students for graduation in the commonwealth, and to identify the gaps that may exist between those different sets of expectations. The ADP's gap-analysis work consists of two parts. **Part one** focused on an analysis of the content of high school exit and college entrance/placement assessments; **part two** focused on defining postsecondary expectations and determining the degree to which current ADP state standards and assessments reflect those expectations.

In **part one,** the Education Trust assembled English Language Arts (ELA) and mathematics faculty members from K-12 systems and from two- and four-year colleges in the five ADP partner states (Indiana, Kentucky, Massachusetts, Nevada and Texas). At these meetings, the faculty members examined the content of partner-state high school graduation assessments, national college admissions and placement tests (i.e., SAT, ACT, COMPASS, Accuplacer), a sampling of postsecondary institutional placement tests, and the GED.

The results from part one comprise Education Trust's five state reports, reflecting the feedback received from faculty members to the aforementioned assessments, as well as the Education Trust's analytical "cross-state" report. These reports discuss the relative strengths and weaknesses of the assessments and how well each assessment might serve postsecondary institutions in making admissions and placement decisions. By examining individual test items, the faculty members were able to examine the breadth and depth of content coverage, as well as the types and quality of test items. The first part of the gap-analysis work revealed that:

- The Kentucky Core Content Test (KCCT) of Reading is administered in the 10th grade, too early for it to be useful for admissions and/or placement.

- The reviewers stated that the 12th-grade on-demand writing portion of the KCCT might be a better indicator of college success than the college placement prompts they examined.

A closer look at the alignment of the Kentucky Core Content Tests to the Kentucky Core Content for Assessment Standards and to postsecondary expectations was warranted to determine how high school standards and assessments might become more closely aligned to college admissions and placement standards.

*For the complete analysis from **part one**, see The Education Trust report for Kentucky, "Assessing the Test Gap: Findings from the Gap Analysis for the American Diploma Project" and the cross-state report "Bridging the Test Gap: Findings from a Five State Gap Analysis for The American Diploma Project."* [1]

In part two, Achieve and ADP staff, using the assessment-to-standards alignment, [2] conducted an alignment study of the Kentucky Core Content for Assessment standards and the Kentucky Core Content Test (KCCT) of Reading (10th grade), Mathematics (11th grade), and (on-demand) Writing (12th grade). With both the assessment-content analysis and the alignment studies complete, ADP staff met with faculty members from two- and four-year colleges in Kentucky, representing a range of content areas (organized into ELA and Math Teams) to:

1. define their expectations for incoming students,

2. prioritize their expectations for students, as may be contained in the Kentucky standards,

3. determine the degree to which the current standards and assessments together reflect those expectations, and

4. identify any gaps (missing content) in the standards and assessments.

In this round of discussion, it was particularly helpful to have had a cross-section of faculty from the humanities, sciences and social sciences, since reading, writing and mathematics skills are necessary for success in all credit-bearing courses throughout college, not just English and mathematics.

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[1] The Education Trust gap-analysis reports were circulated in 2002 and are available on the ADP website <http://www.americandiplomaproject.org/>.

[2] For a complete description of the protocol, see "Benchmarking and Alignment of Standards and Testing, CSE Technical Report," available on the ADP website <http://www.americandiplomaproject.org/>.

Part One Findings:
Assessment Content Analysis

Reading:

- The Kentucky Core Content Test of reading is administered in 10th grade, too early to be useful for admissions or placement, and its level of cognitive challenge is too low to provide information regarding college readiness.

- All the reading passages were non-fiction: two were autobiographical, three were functional or informational, and one was persuasive. Although there was considerable variation in terms of the length of the passages, the reviewers recommend greater variation in the type of reading passages, specifically they expressed the need to include fictional passages.

- The reviewers expressed concern over the cognitive challenge of the passages. Four of the five passages were judged to be at the middle school level; only one was judged to be at the upper high school (11th/12th grade) level.[3] Having so many without a sufficient level of cognitive challenge, however, makes the assessment a better measure of middle school than high school competency.

- The cognitive challenge of the selected-response items was also determined to be at the lower end of the scale: Seventy-one percent were judged to be at the middle school level, another 25 percent were judged to be at the elementary level, leaving only 4 percent (i.e., one question) to be at the high school level. While 17 percent of the constructed-response items were judged to be at the 4th- thru 6th-grade level, the remaining items required a higher level of cognitive challenge (50 percent were moderate and 33 percent were complex), requiring some level of interpretation and analysis.

Writing:

- Reviewers agreed that the Kentucky Holistic Scoring Guide for the writing prompts is strong, and could describe writing that would be expected in postsecondary courses.

- Following this finding, reviewers agreed that a proficient performance on the Kentucky Core Content Test of on-demand writing could show college readiness.[4]

- On the KCCT of Writing, students are asked to provide persuasive writing, but postsecondary institutions require essays and analytical writing. Reviewers

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[3] It is important to note that the test is meant to assess core content from grades 8 -10, so including some middle school passages would be appropriate.
[4] The team made this finding based on the description of "proficient" writing in the scoring guide, not on anchor papers scored as such. Anchor papers were not available for the team's review.

recommend that KCCT assess students' abilities to produce such postsecondary writing.

- Unlike the KCCT of Writing, reviewers found that the writing tests at Eastern Kentucky University and Murray State University would not effectively measure readiness for postsecondary writing because the prompts lacked direction about audience, purpose, and form. Moreover, when a rubric was provided, it placed higher value on the structure of the writing than on the content of the writing.

- The ACT English test uses a multiple-choice format and focuses almost exclusively on editorial skills (grammar, punctuation, spelling and syntax). As such, the ACT cannot serve as an assessment of good writing (e.g., attention to genre, audience, and purpose).

- The Kentucky senior writing portfolio could become a key component for college writing placement, particularly if its contents were revised to include more analytical writing and fewer reflective or personal pieces. Such a revision would make the portfolio more valuable to both colleges and the workplace.

Part Two Findings (Reading and Writing):
Definition of Postsecondary Expectations and Examination of Alignment
among Standards, Assessments and Expectations

Part two of the postsecondary-expectations analysis began by Achieve, Inc. and ADP staff conducting an assessment-to-standards alignment study of the Kentucky Core Content for Assessment for Reading and Writing standards, and the Kentucky Core Content Test (KCCT) of 10th-Grade Reading and 12th-Grade Writing. The alignment protocol used was designed by Achieve to determine the extent to which standards-based assessments actually assess the content standards that a state has defined for students. Following is a brief description of the Achieve protocol.[5]

The protocol considers four dimensions in its analysis of the degree of alignment between an assessment and a set of standards.

- ***Content centrality:*** This criterion provides a deeper analysis of the match between the content of each examination question and the content of the related standard by examining the degree or quality of the match. Reviewers assign each item to one of four categories based on the degree of alignment: "2" = clearly consistent; "1a" = not specific enough; "1b" = somewhat consistent; "0" = inconsistent.

- ***Performance centrality:*** This criterion focuses on the degree of the match between the type of performance (cognitive demand) presented by each examination item and the type of performance described by the related standard. Each item makes a certain type of cognitive demand on a student (e.g., the item requires a certain performance such as "select," "identify," "compare," or "analyze"). Reviewers assign each item to one of four categories based on the degree of alignment: "2" = clearly consistent; "1a" = not specific enough; "1b" = somewhat consistent; "0" = inconsistent.

- ***Challenge:*** This criterion is applied to a set of items to determine whether doing well on these items requires students to master challenging subject matter. Reviewers consider two factors in evaluating sets of examination items against the challenge criterion: *source* of challenge and *level* of challenge.

  - ***Source of challenge*** attempts to uncover whether the individual examination items in a set are difficult because of the knowledge and skills they target, or because of other reasons not related to the subject matter, such as relying unfairly on students' background knowledge. Reviewers rate each item as having an appropriate (1) or inappropriate (0) source of challenge.

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[5] For a complete description of the protocol, see "Benchmarking and Alignment of Standards and Testing, CSE Technical Report," available on the ADP website <http://www.americandiplomaproject.org/>.

❑ ***Level of challenge*** compares the emphasis of performance required by a *set* of items to the emphasis of performance described by the related standard. In addition to evaluating alignment, reviewers also judge whether the set of examination items has a span of difficulty appropriate for students at a given grade level based on the standards, the assessment and supporting materials. Reviewers assign each item to one of four categories indicating its type of cognitive demand: 4 = analysis; 3 = interpretation; 2 = inference; 1 = basic comprehension.

- ***Balance and range****:* No one assessment can measure the full range of knowledge and skills described in the state standards. Evaluating balance and range provides both qualitative and quantitative descriptive information about the choices states or test developers have made.

   ❑ ***Balance*** compares the emphasis of content supplied by an item *set* to the emphasis of content described by the standards. In addition to evaluating alignment, reviewers also judge whether the set of items emphasizes the more important content at the grade level. Reviewers write a succinct summary of the balance of each item set.

   ❑ ***Range*** is a measure of coverage or breadth (the numerical proportion of all content addressed).

With the alignment study complete (*see appendices following for summary data for each of the above categories*), Achieve and ADP staff met with faculty members from two- and four-year colleges in Kentucky, representing a range of content areas, for the following discussion.

Step One: Define Expectations for Incoming Students

Thinking more about what is really needed, rather than bowing to the current state of student reading and writing expertise, what follows is a list of minimum skills and concepts articulated by postsecondary personnel in Kentucky as necessary to do credit-bearing work at colleges and universities in the commonwealth:

1. Produce persuasive writing
2. Produce analytical writing
3. Compare and contrast texts
4. Establish a thesis statement and defend it
5. Present evidence for positions
6. Scan to locate/listen for/convey most essential information
7. Identify bias
8. Use correct grammar, logic, usage, punctuation and mechanics
9. Use the dictionary
10. Summarize text (and distinguish between summary and critique)
11. Literary *analysis* (rather than personal feelings, reflections)

12. Determine the appropriateness of a response type (see #11…i.e., when is it appropriate to offer personal opinion v. analysis, etc.)
13. Demonstrate understanding of an argument (e.g., identify the structure, discuss it, rebut or refute claims, critique its validity)
14. Recognize, evaluate, compare/contrast the effectiveness of oral and written arguments
15. Navigate non-print text (media literacy)

Step Two: Prioritize expectations for students, as reflected in the Kentucky Core Content for Reading and Writing Assessment standards

Question One: Are the competencies required in college in a broad range of disciplines represented in the Kentucky Core Content for Reading and Writing Assessment standards?

Answer: No. The ELA Team stated that the Kentucky Core Content for Reading and Writing Assessment standards contain several gaps and, consequently, do not fully represent what students need to know and be able to do in order to succeed in credit-bearing postsecondary courses. The team also stated that many of the Kentucky Core Content for Assessment standards are too vague and general to articulate with any precision exactly what is expected of students.

Following are some specific recommendations made by the ELA Team for improving the Kentucky Core Content for Reading and Writing Assessment standards in order to reflect more closely the needs of postsecondary institutions:[6]

Reading:

- Students must be asked to think critically *about something* and an ideal place would be to ask students to think critically about literature. As they stand, the Kentucky Core Content for Assessment standards only address this skill abstractly.

- The ELA Team noted the trend toward self-interpretation or "developmental narcissism," where students have been encouraged to interpret text from a personal, egocentric, "how-does-this-pertain-to-me?" perspective. Non-English faculty (teachers of history, philosophy and religion) in particular asked that the "egocentric" value of texts be de-emphasized in high schools.

- The ELA Team would like the amount and kind of reading expected of students in postsecondary institutions to be addressed in the standards. Many postsecondary faculty members have encountered students who withdraw from

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[6] The American Diploma Project tracked feedback from the ELA Team on individual objectives and examples; it can make this feedback available as requested.

their courses upon learning that they will be required to read as few as two books.

- The ELA Team would like to see much greater emphasis placed on the ability to differentiate between fact and opinion.

Writing:

- The ELA Team is concerned about jargon in the standards; in particular, the term "transactive" writing caused confusion. Most on the ELA team were unfamiliar with this term, although, after some discussion, group determined that it is related to persuasive and analytical writing. This specific issue raised a more general comment: a disconnect exists between the language (i.e., terminology/lexicon) used in K-12 and in college that places a needless burden on students. Bridging the gap between the terminology used in K-12 standards and college courses would benefit both secondary and postsecondary institutions, as well as the students they serve.

- The standards need to be explicit about thesis and idea development. Students must be able to define and narrow a topic in order to be successful in college.

- The standards ought to require students to produce analytical writing, argumentation, and comparison/contrast essays. The lack of such requirements was particularly worrisome to the ELA Team. The team suggested that Kentucky tease out this content, perhaps by supplanting "Transactive Writing" with "Analytic and Persuasive Writing." The ELA team also suggested that Kentucky refer back to the persuasive reading standards to sketch the priorities for persuasive writing.

- The standards need to be genre-specific and identify the qualities expected for each type of writing.

Step Three: Determine the degree to which the Kentucky Core Content Tests reflect the Kentucky Core Content for Assessment standards and postsecondary expectations

Question Two: How does the standards balance/emphasis on the KCCT of Reading and on-demand writing compare to the emphasis that the ELA Team places on the reading and writing knowledge and skills needed to begin college-level work?

Answer: Some shifts would be welcomed in emphasis and are outlined below.

Reading:
- The ELA team would like to see greater emphasis on basic reading comprehension skills and persuasive text analysis. As it stands, there are two

literature reading passages, two informational, one practical, and only one persuasive passage on the KCCT of Reading *(see TABLE ELA1)*.

TABLE ELA1: 10th Grade ELA Standards Emphasis/Balance on the KCCT of Reading

Standards	ELA Team (Average)	ELA 10th Grade Assessment
READING SKILLS: Reading skills enable students to comprehend all types of reading materials.	21.3%	13.3%
LITERATURE: Literary reading includes whole texts and excerpts from materials.	17.5%	26.7%
INFORMATIONAL TEXT: Informational reading includes whole texts and excerpts from materials.	22.5%	26.7%
PERSUASIVE TEXT: Persuasive reading includes whole texts and excerpts from materials.	23.8%	16.7%
PRACTICAL/WORKPLACE TEXT: Practical/workplace reading includes whole texts and excerpts from materials.	15.0%	16.7%
TOTALS*	**100.1%**	**100.1%**

* Due to averaging/rounding, the percentages added up to more the 100%.

Writing:

- The ELA Team expressed strong agreement regarding the primacy of correct grammar and usage. Team members noted that even lawsuits could hinge on how sentences are constructed and what words are used. Precision in writing is a critical skill for success in college and in life in general.

- Although the writing portfolio was not examined at this meeting, team members wanted it noted that the portfolio lacks analytical/persuasive writing requirements. The emphasis of the portfolio needs to shift, perhaps by collapsing the literary and narrative pieces and adding a persuasive piece to the portfolio[7] *(see TABLE ELA2)*.

TABLE ELA2: Recommended Standards Emphasis/Balance on the KCCT of Writing and in the Writing Portfolio

Standards	ELA Team Average
Basic Writing Forms and Conventions	30%
Literary Writing	20%
Reflective Writing/Personal Writing	20%
Analytic and Persuasive Writing (Transactive)	30%
TOTALS	**100.0%**

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[7] An aside: The ELA team felt students should "own" their portfolios by choosing the pieces to include rather than relying on teachers to select certain samples for inclusion. Several members of the P-16 Council had similar thoughts. In particular, they recommended that college-style research papers or expository essays be included as these forms are pervasive within academic settings.

Question Three: Can the Kentucky Core Content Tests of reading and on-demand writing be used in their current form for postsecondary admissions and/or placement?

Answer: No. Placing all other concerns aside (discussed below), the KCCTs are matrix assessments and are designed to measure school achievement rather than individual student achievement. As such, they cannot generate individual student scores. Until Kentucky moves to an assessment that provides individual student scores, as federal law now requires at grades three through eight and at one grade in high school, the results cannot be useful for postsecondary admissions and placement decisions.

- **Reading:** The Achieve alignment study revealed that 80 percent of the test items on the Kentucky Core Content Test of reading align clearly to the content in the Core Content for Assessment standards (i.e., received "2s" for content centrality); content centrality alignment could not be determined, however, for 20 percent of the items because the standards were too vague (i.e., not specific enough to map a particular test item to any standard) *(see TABLE ELA3)*.

- More troubling for the KCCT of Reading, only 60 percent of items align clearly to the performance demanded in the Core Content for Assessment standards (i.e., received "2s" for performance centrality). Another 30 percent received a "0", indicating that the performance demanded on the assessment failed to match the performance demanded in the standards *(see TABLE ELA3)*.

- Despite the rather high level of content centrality noted in the Achieve alignment study, the ELA Team determined that too many gaps existed between what is expected of students in the Core Content for Reading Assessment standards and what students need to do postsecondary credit-bearing work. Thus, the Kentucky Core Content Test of reading is not useful for postsecondary admissions and placement decisions. The fact that the performance demanded on the assessment was not faithful to the expectations set forth in the standards was cause for further concern.

TABLE ELA3: Content & Performance Centrality of the KCCT of Reading

Centrality	# of Items	2 (clearly consistent)	1a (standard not specific enough)	1b (item assesses only a part of the standard)	0 (inconsistent)
Content	30 (100% of test)	80% of all items received a 2	20% of all items received a 1a	No items received a 1b	No items received a 0
Performance	30 (100% of test)	60% of all items received a 2	10% of all items received a 1a	No items received a 1b	30% of all items received a 0

- Additionally:

  - The overall level of cognitive demand of the items on the KCCT of Reading is too low (86 percent of test items were rated at a level 2 or lower) and too many items demand only simple "recall" (*see TABLE ELA4*). The ELA Team recommends that Kentucky raise the level of challenge of the items generally, and particularly with respect to the informational and persuasive text passages so that they concentrate more on analysis and interpretation.

  - The constructed-response items pose more challenge than do the multiple-choice items. With that said, the ELA Team suggested that it would be possible even for the selected response items to display a higher level of challenge and to assess a wider variety of the standards than they currently do.

TABLE ELA4: Level of Cognitive Demand of the KCCT of Reading

Demand (28 items scored)	**4** (analysis)	**3** (interpretation)	**2** (inference)	**1** (basic comprehension)
	No items received a 4	14% of all items received a 3	57% of all items received a 2	29% of all items received a 1

- The reading passages, taken as a set, do not have a span of reading *demand* (conceptual complexity, vocabulary, topic, organization, and genre) appropriate for the grade level. The ELA team noted, as an exception, that the Patrick Henry speech is too advanced for 10th graders, but that the remaining five reading passages are pitched at a level too low for 10th graders.[8]

- Although every reading passage is nonfiction, they do span the types of reading described in the standards (i.e., literary, informational, practical, and persuasive). The ELA Team recommends that at least one of the literary passages on the assessment to be fictional text.

- The ELA Team recommends that Kentucky consider moving the administration of the KCCT of Reading from the 10th to the 11th grade, upgrading the content and cognitive demand of the assessment accordingly. The closer the assessment is to graduation, the more relevant it will be to postsecondary admissions and placement decisions.

- **Writing:** The KCCT of Writing, on the other hand, shows promise as an indicator of college readiness (i.e., with regard to making postsecondary admissions and/or placement decisions). The team noted that student results from a stronger on-demand writing test could serve as a good "check" – or cross-reference – of the

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[8] As noted above, the Ed Trust report identified that reading passage to be at an 11th-/12th-grade level.

Kentucky Writing Portfolio in terms of postsecondary admissions and/or placement decisions.

- Additionally:

    - The ELA team found the Kentucky Holistic Scoring Guide for writing useful because it defines audience and purpose, idea development, organization, sentence structure, vocabulary and correct use of language.[9] The guide, consequently, would serve as a solid foundation for *genre-specific* scoring guides, which the team believes would be even more useful and valuable than the current guides to both students and teachers.

    - While the rubric is strong, the team found that the "Sample of Proficient Response of Student" work to be less than "proficient" for the purposes of postsecondary admissions or placement. The weakness of the anchors could indicate the need to improve the training of item writers and raters.

    - The ELA Team recommends that Kentucky consider moving the administration of the KCCT of Writing to the fall semester of the 12th grade because currently, results on the KCCT of on-demand writing given in the spring of 12th grade are not available in time to contribute to postsecondary admissions or placement decisions.

    - Although the Kentucky Writing Portfolios were not examined in Part 2 of the Postsecondary Expectations Research, team members familiar with it stated that scoring consistency, rubrics, expectations, and prompts would all need to be improved if postsecondary institutions are to use the portfolios to make admissions and/or placement decisions.

Question Four: What other recommendations does the ELA Team have for Kentucky's policy panel regarding the KCCT?

Answer: The ELA Team made the following additional recommendations:

- The ideal prompt, according to the ELA Team, inheres answers to the following questions:
    - What am I writing about?
    - What is my purpose in writing?
    - Who is my audience?
    - On what will I be assessed?
    - Is this a topic accessible to all students?

- The ELA Team objected to Writing Task 7 because:

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[9] The P-16 Literacy Alignment Team offered the same assessment. The taskforce also recommended using the Scoring Guide for postsecondary placement evaluations.

- "The task itself was unclear." All the student is asked to do is, "Write a letter…about your thoughts…" While the audience is given (Commissioner of Education), the purpose was not.

- The task asks students just to "give your thoughts," but then actually supplies a list of suggested "thoughts" by issuing a list of pros and cons on the issue.

- The task exemplifies the "developmental narcissism" that postsecondary professors see in their students way too often.

- The ELA Team was more pleased with Writing Task 8, as it provided a purpose and a specific audience, and aligns more closely to the standards.

Question Five: Are the passing cut scores on the Kentucky Core Content Tests of reading and on-demand writing equivalent to the competency needed for college?

Answer: It is doubtful that a passing score on the KCCT of Reading could reflect the competency required for college; whether a passing score on the KCCT of Writing is sufficient is less clear.

Reading:
- The most important issue regarding the KCCT of Reading is that its overall cognitive challenge is far too low, so even a high score on that assessment would not indicate college readiness.

Writing:
- The ELA team found that the "Sample of Proficient Response of Student Works" to be less than proficient for use as an indicator of readiness to do credit-bearing work at a state college or university.

APPENDICES

The following tables represent the results from the Achieve alignment study of the Kentucky Core Content Test and the Kentucky Core Content for Reading Assessment.

Assessment
Kentucky Core Content Test
Grade 10 Reading, Spring 1999 Release Form

Standards
Kentucky Core Content for Reading Assessment
Grades 8 through 10 with Assessment at Grade 10
Version 3.0, August 1999

Test Design*
24 Multiple-Choice Items
6 Constructed-Response Reading Items
* One item not mapped, another double-mapped
30 items scored

APPENDIX 1: Content Centrality

APPENDIX 2: Performance Centrality

APPENDIX 3: Source of Challenge

APPENDIX 4: Level of Cognitive Demand

APPENDIX 5: Level of Challenge

APPENDIX 6: Balance

APPENDIX 7: Range

APPENDIX 1: Content Centrality

Note: Ratings for Content Centrality are "2" = clearly consistent; "1a" = not specific enough; "1b" = somewhat consistent; "0" = inconsistent.

Standard	# of items	2	1a	1b	0
X. READING SKILLS	4 (13%)	4			
1. LITERATURE	8 (22%)	4	4		
2. INFORMATION	8 (30%)	8			
3. PERSUASIVE	5 (17%)	3	2		
4. PRACTICAL	5 (17%)	5			
Totals for Entire Exam	**30** (100%)	**24** (80%)	**6** (20%)	**0**	**0**

APPENDIX 2: Performance Centrality

Note: Ratings for Performance Centrality are "2" = clearly consistent; "1a" = not specific enough; "1b" = somewhat consistent; "0" = inconsistent.

Standard	# of items	2	1a	1b	0
X. READING SKILLS	4 (13%)	4			
1. LITERATURE	8 (22%)	2	3		3
2. INFORMATION	8 (30%)	4			4
3. PERSUASIVE	5 (17%)	3			2
4. PRACTICAL	5 (17%)	5			
Totals for Entire Exam	**30** (100%)	**18** (60%)	**3** (10%)	0	**9** (30%)

APPENDIX 3: Source of Challenge

Note: Ratings for Source of Challenge are "1" = appropriate, "0" = inappropriate.

Standard	# of items	1	0
X. READING SKILLS	4 (13%)	25	1
1. LITERATURE	8 (22%)	--	--
2. INFORMATION	8 (30%)		
3. PERSUASIVE	5 (17%)	12	0
4. PRACTICAL	5 (17%)	1	0
Totals for Entire Exam	**30** (100%)	**28** (93%)	**2** (7%)

APPENDIX 4: Level of Cognitive Demand

Note: Ratings for Level of Cognitive Demand are "4" = analysis; "3" = interpretation; "2" = inference; "1" = basic comprehension.

Standard	# of items	4	3	2	1
X. READING SKILLS	4 (13%)	0	0	4	0
1. LITERATURE	8 (22%)	0	2	5	1
2. INFORMATION	8 (30%)	0	1	4	3
3. PERSUASIVE	5 (17%)	0	1	2	1
4. PRACTICAL	5 (17%)	0	0	1	3
Totals for Entire Exam	**30** (100%)	**0**	**4** (14%)	**16** (57%)	**8** (29%)

APPENDIX 5: Level of Challenge

Note: Ratings for Level of Challenge are either Appropriate or Low.

Standard	Level of Challenge of Item Set	Comments
X. READING SKILLS	Appropriate	MC=1, CR=3 Level 2=4
1. LITERATURE	Appropriate	MC=7, CR=1 Level 1=1, Level 2=5, Level 3=2
2. INFORMATION	Appropriate	MC=7, CR=1 Level 1=3, Level 2=4, Level 3=1
3. PERSUASIVE	Appropriate	MC=3. CR=1 Level 1=1,Level 2=2, Level 3=1
4. PRACTICAL	Low	MC=3, CR=1 Level 1=3, Level 2=1

Note: Ratings for Level of Challenge are either Appropriate or Low.

APPENDIX 6: Balance

Note: Ratings for Balance are either Fair or Poor.

Standard	Number of Items	Balance of Item Set
X. READING SKILLS	4	Good
1. LITERATURE	8	Good
2. INFORMATION	8	Good
3. PERSUASIVE	4	Fair
4. PRACTICAL	4	Fair

APPENDIX 7: Range

Note: Ratings for Range are either Good, Acceptable, or Poor.

Standard	Number of Items	Balance of Item Set
X. READING SKILLS	2/7 or 0.28	Acceptable
1. LITERATURE	6/8 or 0.75	Good
2. INFORMATION	4/6 or 0.67	Good
3. PERSUASIVE	4/7 or 0.57	Acceptable
4. PRACTICAL	3/6 or 0.50	Acceptable